

# EAN900



## User's Manual



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Product Name: EAN900 EverFocus IP Network Cameras

Model Number(s): EAN900

FCC Notice "Declaration of Conformity Information"

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential Installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications made to this equipment, not expressly approved by EverFocus or parties authorized by EverFocus could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

EverFocus Electronics Corp.  
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EAN900 complies with CE and FCC.

**About this document**

All the safety and operating instructions should be read and followed before the unit is operated. This manual should be retained for future reference. The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

**Safety Notice**

- These limits are designed to provide reasonable protection. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: -Reorient or relocate the receiving antenna.
- Increase these separations between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.




To reduce risk of fire or electric shock, do not expose this appliance to rain or moisture.





Do not attempt to disassemble the appliance. To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance. Handle the appliance with care. Do not strike or shake, as this may damage the appliance.




Do not use strong or abrasive detergents when cleaning the appliance body. Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.

 Do not operate the appliance beyond its specified temperature, humidity or power source ratings. Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the appliance at temperature within 0°C ~ +40°C / 32°F ~ 104°F and a humidity below 90%. The input power source for this appliance is 12 VDC & PoE.

 Use only the recommended power supplies. Power supplies must comply with the requirement of the latest version of IEC60950-1. Substitutions may damage the unit or cause a fire or shock hazard.

 Electrostatic-sensitive device. Use proper CMOS/MOSFET handling precautions to avoid electrostatic discharge.

 Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

### **Terms and Trademark**

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### **Support**

If the unit ever needs repair service, the customer should contact the nearest EverFocus Electronics Corp. Service Center for return authorization and shipping instruction.

### **About AC Adaptor**

Specifications for AC adaptor

Power Supply: 12VDC, 1 A

Power Output: 12VDC, 1 A

Operating Temperature: 0°F ~ 40°F / 32°F ~ 104°F

External Dimensions: 56 mm x 68 mm x 101 mm / 2.24" x 2.72" x 4.04"

## TABLE OF CONTENTS

<b>1. INTRODUCTION.....</b>	<b>6</b>
<b>2. FEATURES .....</b>	<b>6</b>
<b>3. ACCESSING THE CAMERA MENU .....</b>	<b>6</b>
<b>4. SETTING.....</b>	<b>10</b>
4.1 SYSTEM INFO .....	11
4.1.1 Information .....	11
4.1.2 Log .....	12
4.2 USER CONFIG .....	13
4.3 NETWORK .....	15
4.3.1 Network.....	15
4.3.2 DDNS.....	17
4.3.3 Bandwidth.....	18
4.3.4 SMTP/FTP .....	19
4.3.5 Network Alarm (reserved for PowerCon).....	21
4.4 VIDEO .....	21
4.4.1 Multi Streaming .....	22
4.4.2 Camera .....	23
4.4.3 Advanced.....	24
4.5 AUDIO .....	26
4.6 USER .....	27
4.7 EVENT.....	28
4.7.1 Event .....	29
4.7.2 Motion.....	31
4.7.3 Alarm.....	32
4.7.4 Time Mask .....	33
4.8 SYSTEM.....	35
4.8.1 Date/Time.....	35
4.8.2 Daylight Saving .....	37
4.8.3 SD Card.....	38
4.8.4 Maintenance .....	40
<b>5. SPECIFICATIONS.....</b>	<b>42</b>

## 1. INTRODUCTION

The EAN900 network camera with a built-in 1.3 mega-pixel progressive scan CMOS offers crisp images with sharp definition and reduced motion blur that occurs in regular interlaced CCD. EAN900 process multi-streaming of H.264 or MPEG-4, MJPEG compression in full megapixel resolution, which allows for optimization both in image quality and bandwidth efficiency. Equipped with a SD card slot, EAN900 offers another way to record and manage your video and can provide uninterrupted recording when network system is down. Beside, EAN900 is a Day and Night Mega-pixel camera with IR cut filter. The EAN900 high performance megapixel network camera is unquestionably the best choice to meet your need for professional video surveillance.

## 2. FEATURES

- 1.3 mega-pixel 1/3 progressive scan CMOS sensor with high sensitivity.
- Built-in H.264, MPEG-4 and MJPEG digital signal output at 1280x1024 image size with up to 15fps.
- H.264/MPEG4/MJPEG multi stream output for simultaneous live monitoring and high resolution recording.
- Power over Ethernet (PoE) IEEE 802.3af.
- True Day/Night function with ICR module.
- User-friendly Smart Event Wizard for Event/Schedule/Alarm recording to client PC or SD card.
- Built-in SD memory card slot for local storage and support SD High Capacity.
- Built-in digital Motion Detection function.
- Two way audio.

## 3. ACCESSING THE CAMERA MENU

Step 1. Start an Internet Explorer browser.

Step 2. Enter the IP address or host name of the camera in the **Location/Address** field of your Internet Explorer browser. (Please refer to EAN900 Installation Guide for how to find the IP address)

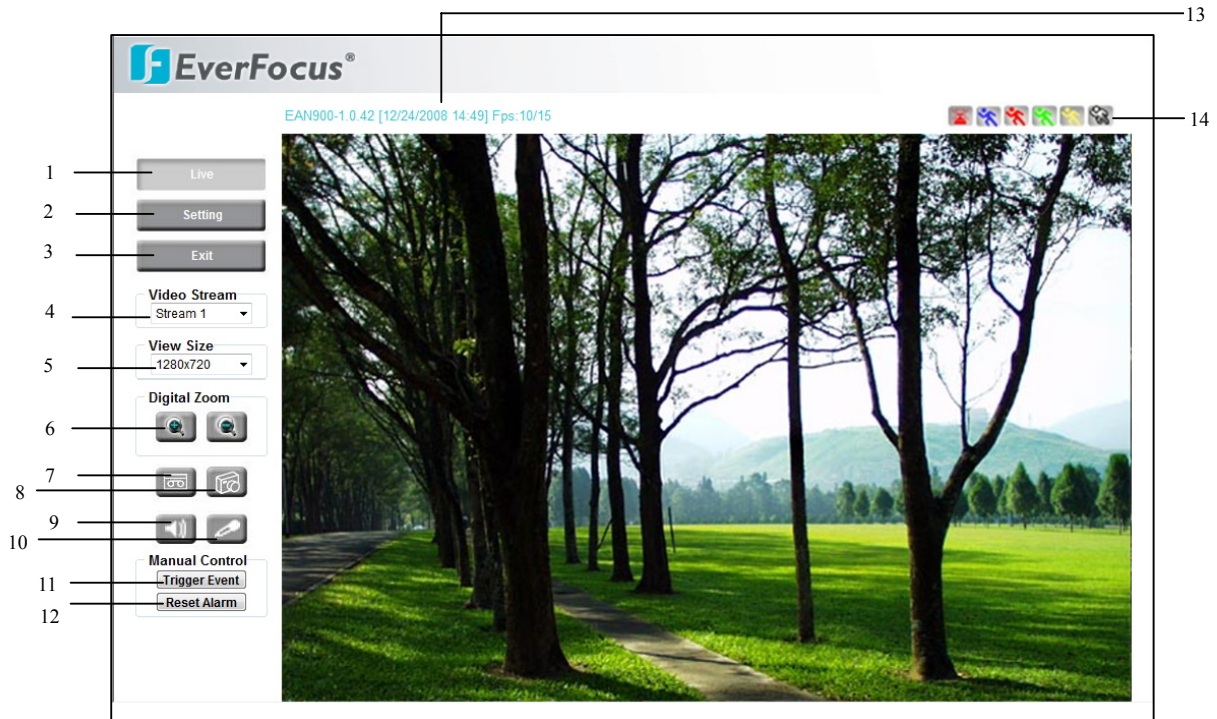
Step 3. Input “Username” and “Password”. Default Username is “**user1**” and default password is “**1111111**”.


Step 4. Click “Login” button.

Step 5. You might be required to download Active X, which is required to view


camera video. Please click "Yes".

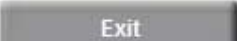
Step 6. Congratulation!! You should be able to see the live image now.



1. Press  button to display the "Live" page.

Double click on the image to show a full screen display, double click again or press ESC to return normal display.

2. Press  button to enter Setting page. In Setting page, there are 8 sections: [System Info], [User Config], [Network], [Video], [Audio], [User], [Event] and [System]. Please refer to “4. SETTING” for further information.

3. Press  button to close EAN900 network page.

4. Video Stream 

Select Video Stream from Stream 1, Stream 2 and Stream 3. Please refer to “4.4.1 Multi Streaming” for further information.

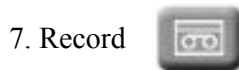


You can select View size to either reduce or enlarge the image to the appropriate view size.

Select the view size for live images from:  
1280\*1024/1280\*960/1280\*720/640\*480/320\*240



Press “+” or “-“ button to enlarge / reduce the displayed image. (max. is X10)



The record button is used to record the current video stream. The location where the image file is saved can be specified in Setting -> User’s Config. Please refer to “4.2 User Config” for further information.

*Note: Record segment is limited to 5 min. If you need to do long time recording, please set schedule recording. For more details about schedule recording, please see “4.7 Event”.*



The Snapshot button saves a snapshot of the video image currently being displayed. The location where the snapshot data is saved can be specified in Setting -> User’s Config. Please refer to “4.2 User Config” for further information.



Click the “Play Audio” and “Transmit Audio” buttons to switch the sound off and on for the speaker and microphone, respectively.



Press “Reset Alarm” button to reset alarm output remotely.



### 11. Manual Control – Trigger Event

Press “Trigger Event” button to trigger an event directly from live view page, and event actions will be effective if they have been set in “Event” menu. (Please refer to “4.7.1 Event”)

### 12. Manual Control – Reset Alarm

Press “Reset Alarm” button to reset alarm output remotely.

### 13. Status Display

The name of the camera whose settings currently being configured, current date/time and current frame rate will be displayed.

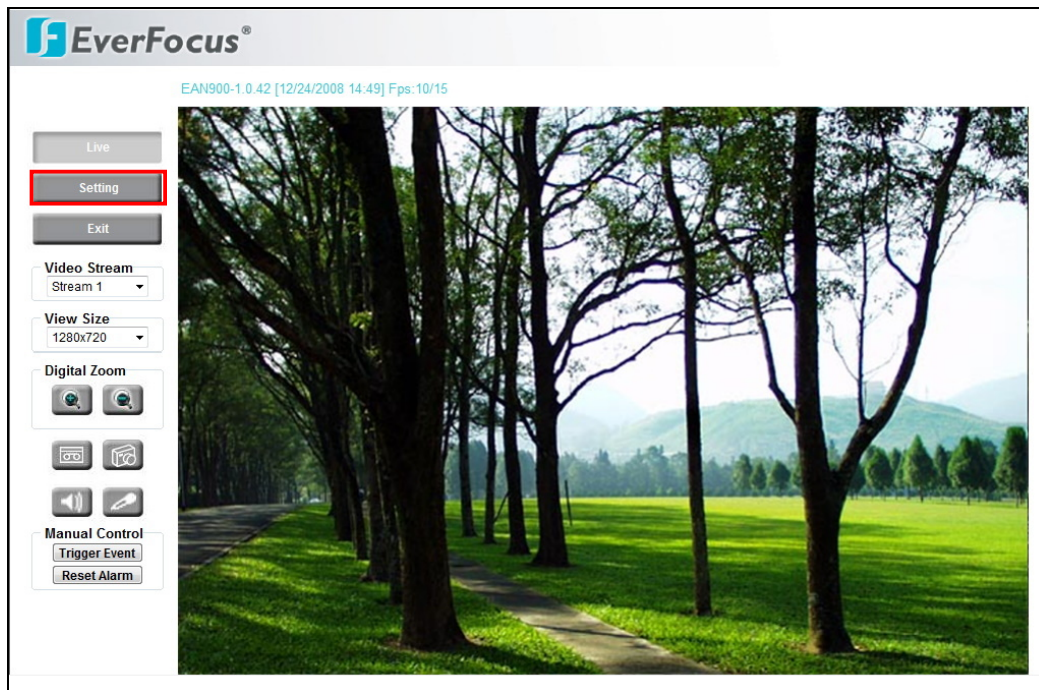
### 14. Event signals

Alarm      Motion

When an alarm or motion event is triggered, a signal icon will flash to alert user. The first icon is for alarm event and rest of the 5 icons are for motion event. The motion event icons which differed by colors correspond to the motion trigger areas you have set in Motion menu. Please refer to “4.7.2 Motion” for detailed information about Motion setup.

## 4. SETTING

Click this button to display the setup menu.

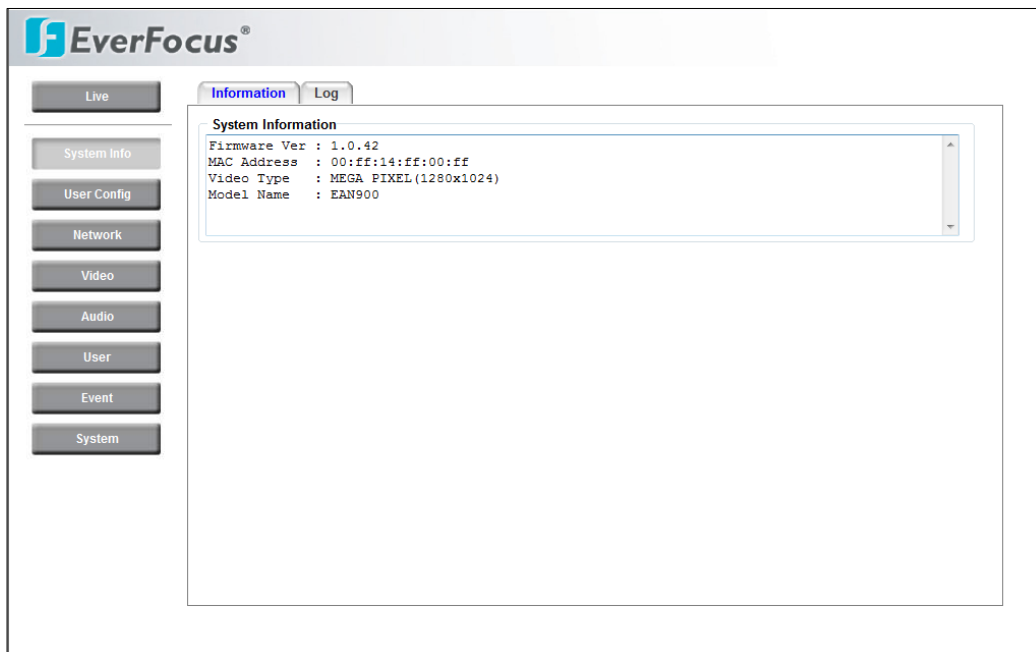


## 4.1 System Info

System information and system log check of the setup menu can be performed on this page. The “System Info” page has 2 tabs: [Information] tab and the [Log] tab.

### 4.1.1 Information

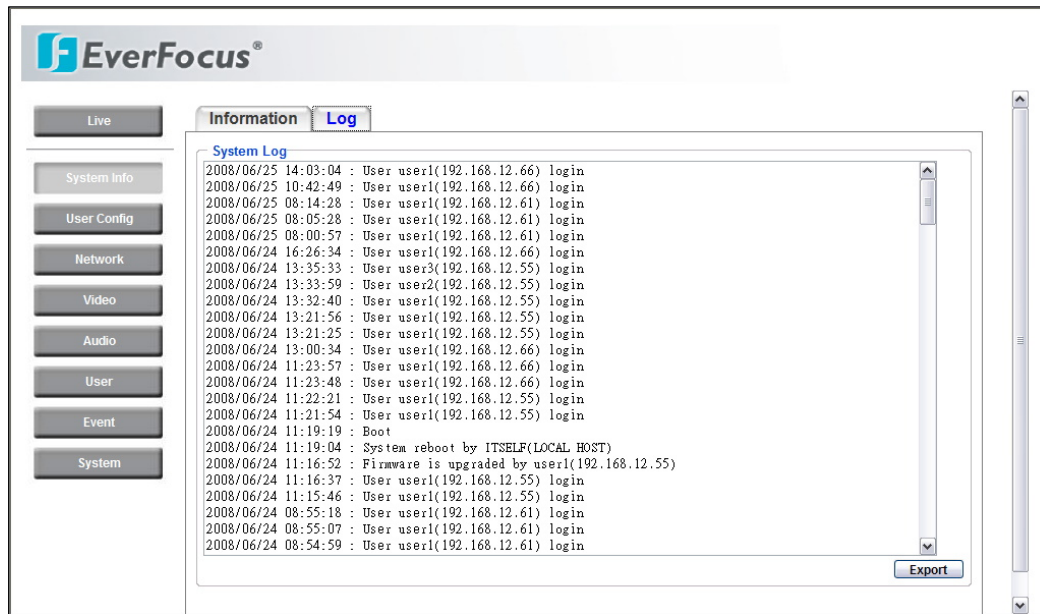
System Information: Firmware version, MAC address, Video Type, Model number.  
(unchangeable, for reference only)



The screenshot displays the EverFocus web interface. On the left side, there is a vertical menu with buttons for 'Live', 'System Info', 'User Config', 'Network', 'Video', 'Audio', 'User', 'Event', and 'System'. The 'System Info' button is highlighted. The main content area has two tabs: 'Information' (selected) and 'Log'. Under the 'Information' tab, there is a section titled 'System Information' containing the following details:

```
Firmware Ver : 1.0.42
MAC Address  : 00:ff:14:ff:00:ff
Video Type   : MEGA PIXEL(1280x1024)
Model Name   : EAN900
```

### 4.1.2 Log




#### System Log:

**Date/Time:** displaying date and time of the log.

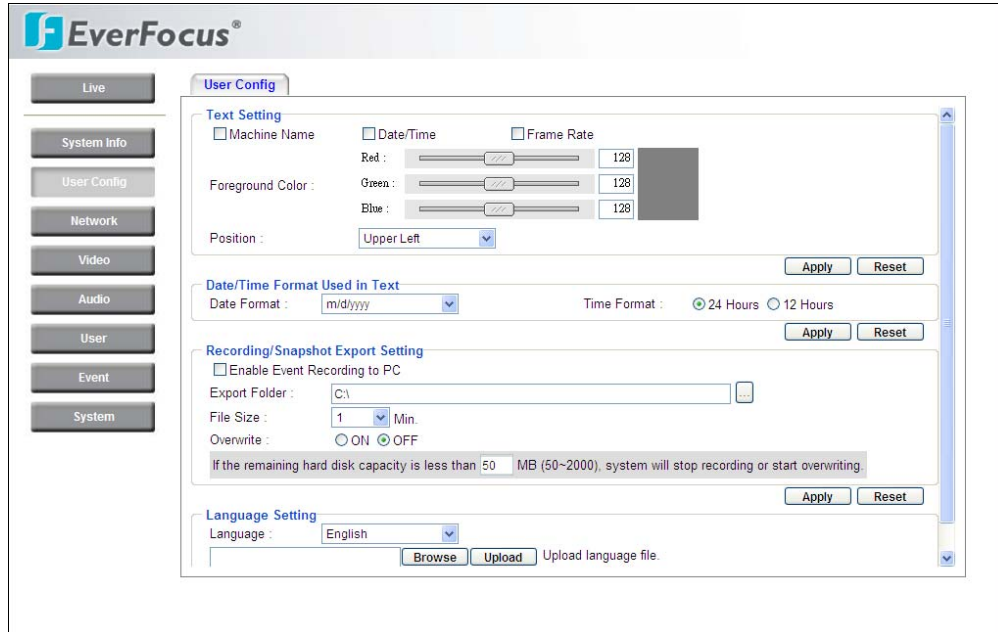
**Log message:** all information and event message, including login, user’s IP, reboot, firmware upgrade, load factory default, configuration reset and event detected.

System will keep the newest 256 records.

Press  button to export system log into “.txt” file and select the location where the exported log file will be saved to.

## 4.2 User Config

Live view configuration is to be set by user. Each login user can make his/her own settings for the following items:



### Text Setting

Check the box for text of **Machine name**, **Date/Time** or **Frame Rate** to be displayed on the screen.

#### Text Color

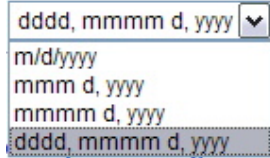
Foreground Color: Select the foreground color of text to be displayed by moving the slide bar between **Red**, **Green** and **Blue** until your desire color is obtained.

Position: Select the position where the text will be displaying from Upper Left / Lower Right / Lower Left.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### Date/Time Format Used in Text

Select Date/Time Format from the following options:




Time Format: 24 Hours or 12 Hours.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### Recording/Snapshot Export Setting

Enable Event Recording to PC: Allow event video recorded to users' PC if any events have been set to record to PC.

Export folder: Select Export folder by clicking on  button, then direct to the folder to be exported.

File size: Able to limit the size of the single recording file in minutes. When the single recording file size exceeds the time you set, system will create a new file to continue recording.

Overwrite: Select “ON” for overwriting recording/snapshot file when the disk storage capacity is full.

If the remaining hard disk capacity is less than \_\_\_\_ MB (enter the value you wish to set between 50~2000), system will stop recording or start overwriting.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### Language Setting

Language: Select the language to be displayed in web page. Default language is English. To add a new language which is not listed in the original configuration, press the Browse button to locate the new language file (.evb) and then click the Load button.

*Note: Upload a new language file will reboot system automatically. Please reconnect IP camera after reboot.*

Press **Apply** to apply the setting changes or **Reset** to reset without saving the

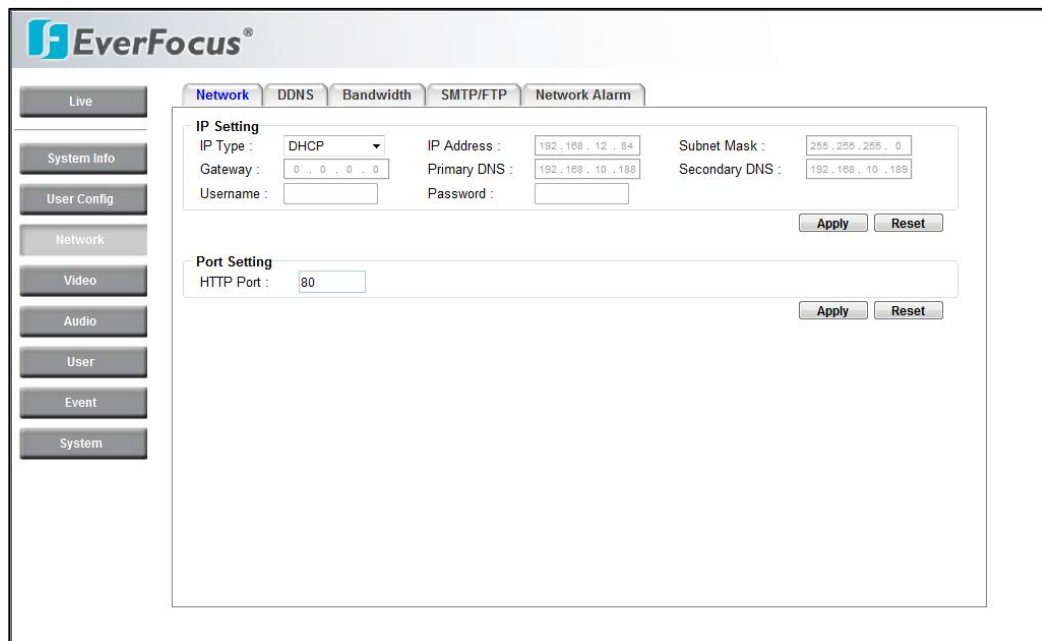
change.

### 4.3 Network

The network settings and the settings relating to Network, DDNS, Bandwidth, SMTP/FTP and Network Alarm can be configured on this page.

The "Network setup" page has 5 tabs of the [Network] tab, the [DDNS] tab, the [SMTP/FTP] tab and the [Network Alarm] tab.

#### 4.3.1 Network



The following information is required to configure the network settings. Contact the network administrator or your Internet service provider.

- IP Type
- IP address
- Subnet mask
- Gateway (when using the gateway server/router)
- Primary DNS, Secondary DNS (when using DNS)
- HTTP Port

#### IP Setting

##### **IP Type**

DHCP: Configure the DHCP server not to assign the same IP addresses used for the other network cameras and PCs whose IP address is unique. Refer to the network administrator for the settings of the server. Default: DHCP.

Static IP: User can manually set the static IP for network connection.

PPPoE: This is a DSL connection application, ISP will ask user to input user name and password.

*Note: If PPPoE is used as IP type, IP Utility software will not be able to detect the device.*

### **IP address**

When not using DHCP, enter the IP address of the camera. Do not enter the IP address already used for PC or other network cameras.

### **Subnet Mask**

This field is to set the netmask for your network so as the IP camera will be recognized within the network. Example: 255.255.255.000. When DHCP is selected, the DHCP server will assign this value automatically.

### **Gateway**

This field is to set the gateway for your network so the IP camera will be recognized within the network. When DHCP is selected, the DHCP server will assign this value automatically.

### **Primary DNS**

An IP address of DNS server that is provided by ISP.

### **Secondary DNS**

If your ISP provides you an IP address secondary DNS, please set it here.

### **Username**

Enter User name of the account (used only for PPPoE).

### **Password**

Enter Password of the account (used only for PPPoE).



Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

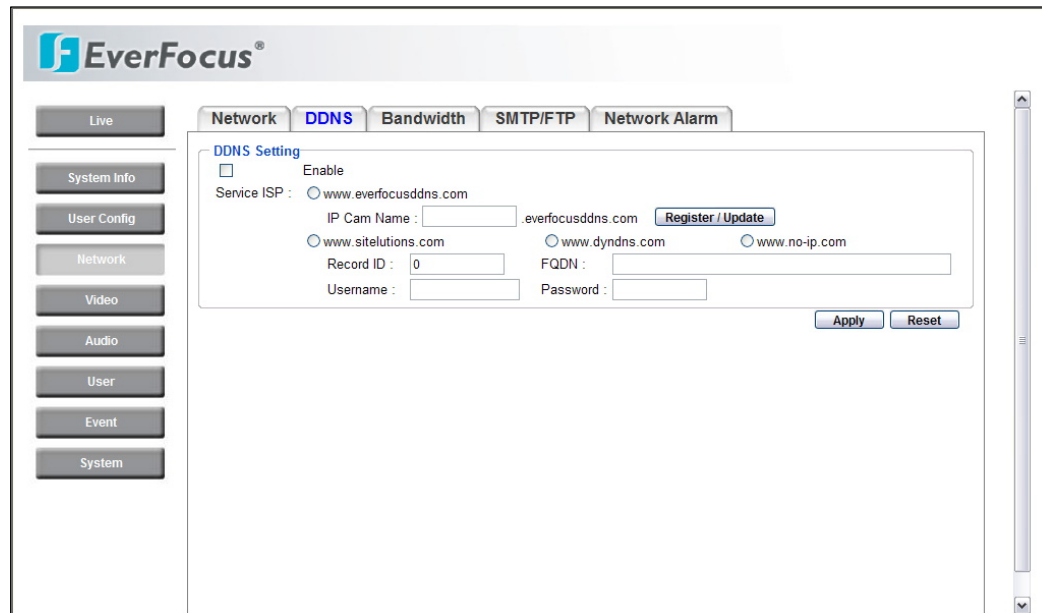
Port Setting

**HTTP Port**

Port number for HTTP/WEB communication.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

**4.3.2 DDNS**



DDNS setting

When accessing the camera via the Internet from the network environment of which the global IP address is obtained using DHCP, the DDNS function is necessary.

To use the DDNS function, it is necessary to connect to the dedicated DDNS server. We offer 4 DDNS server providers as follow:

- [www.everfocusddns.com](http://www.everfocusddns.com)

- [www.sitelutions.com](http://www.sitelutions.com)
- [www.dyndns.com](http://www.dyndns.com)
- [www.no-ip.com](http://www.no-ip.com)

Enable: Check the box to enable DDNS setting.

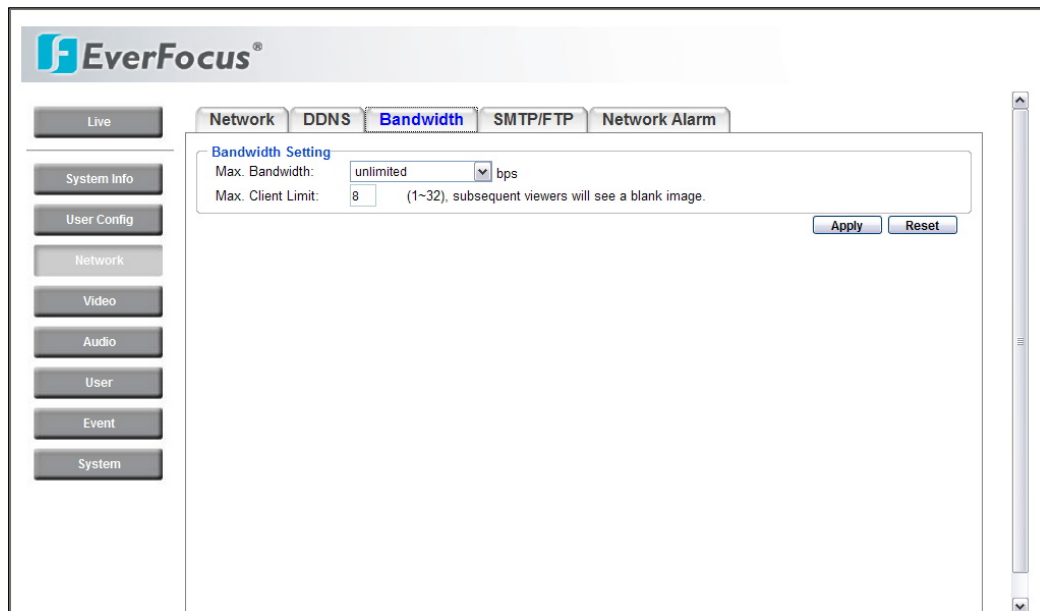
Service ISP: If you choose EverFocus DDNS server, you can obtain a free account name from EverFocus ”[www.everfocusddns.com](http://www.everfocusddns.com)”.

Enter an IP Cam Account Name: \_\_\_\_\_everfocusddns.com  
 Press **Register / Update** button to register or update DDNS account.

If you wish to get a domain name from other DDNS provider, it is necessary to configure Record ID, FQDN, Username and password and register in DDNS server. Refer to the web site for further information about the DDNS.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### 4.3.3 Bandwidth



#### Bandwidth Setting

Max. Bandwidth: Specify, Unlimited / 64 K/ 128 K/ 256 K / 512 K / 1M / 2M / 4M / 8M bps. the maximum bandwidth that the camera is allowed to use on the

network. This is a useful function when connecting the camera to busy or heavily loaded networks. The default setting is Unlimited.

Max. Client Limit: enter a value here to restrict the number of clients accessing the camera. This is useful if you need to save on bandwidth. Up to 32 clients is allowed to see live video simultaneously. Subsequent viewers will see a blank image.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### 4.3.4 SMTP/FTP

The screenshot shows the EverFocus web interface. On the left is a sidebar with buttons for 'Live', 'System Info', 'User Config', 'Network', 'Video', 'Audio', 'User', 'Event', and 'System'. The main area has tabs for 'Network', 'DDNS', 'Bandwidth', 'SMTP/FTP', and 'Network Alarm'. The 'SMTP/FTP' tab is selected, displaying two configuration sections: 'Set SMTP' and 'Set FTP'. The 'Set SMTP' section includes fields for SMTP Server, SMTP Port (default 25), an 'Authentication' checkbox, User Name, Password, Receiver Address, and Sender Address. A 'Send Test Email' button with a 'Test' sub-button is present. 'Apply' and 'Reset' buttons are at the bottom right of this section. The 'Set FTP' section includes fields for FTP Server, FTP Port (default 21), Recording Path, User Name, Password, and a 'PASV Mode' checkbox. A 'Test FTP Server' button with a 'Test' sub-button is present. 'Apply' and 'Reset' buttons are at the bottom right of this section.

#### Set SMTP

The settings relating to the mail server used to send the e-mail notification from the camera to predefined addresses via SMTP can be configured.

SMTP Server: Enter the IP address or the host name of the SMTP server used to send e-mails.

SMTP Port: Enter the port number for SMTP. Default is 25.

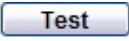
Authentication: Check the box, if the SMTP server requires Authentication (user/password).

User name: Input the login user ID if the SMTP server requires Authentication.

Password: Input the password if the SMTP server requires authentication.

Receiver Address: Input the e-mail address for receiving e-mail message when the EVENT is enabled and triggered. Please use “;” to separate address.

Sender Address: Input sender’s e-mail address, so that receiver can recognize the sender when an event message is sent out.

Send Test Mail: Press  button to send a testing mail to the assigned address.

### Set FTP

The settings relating to the FTP server used to transmit the alarm images can be configured.

FTP Server: Enter the IP address or the host name of the FTP server.


FTP Port: Enter the port number for FTP server. Default is 21.

Recording Path: Assign the recording path.

User Name: Set FTP User’s name.

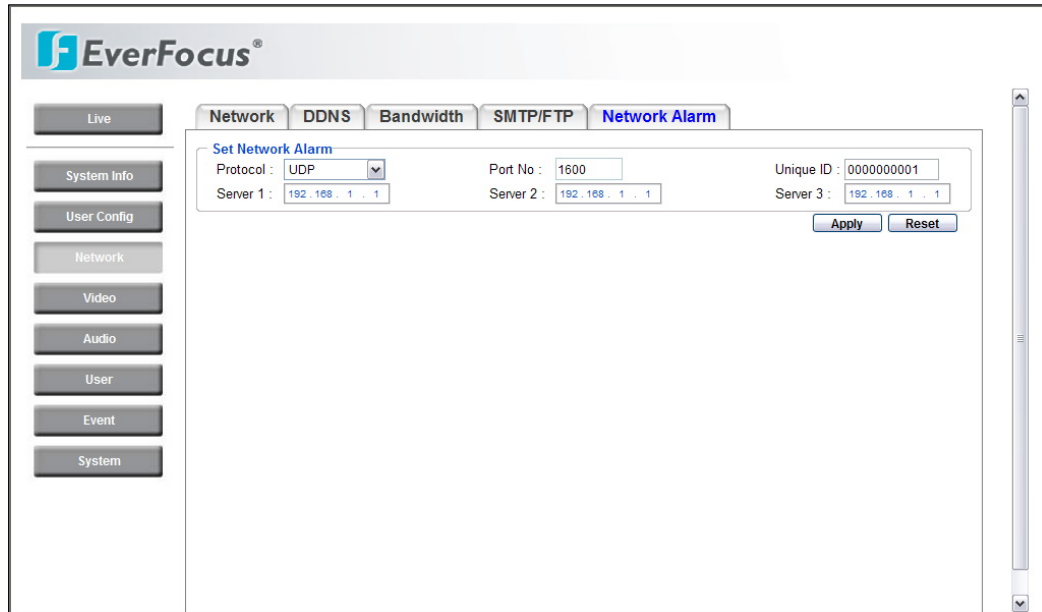
Password: Set FTP password.

PASV mode: Check to enable Passive mode, normally enable Passive mode. When failed to establish the connection, uncheck "PASV" mode.

Test FTP Server: Press  button to send a testing file to the assigned FTP server.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

**4.3.5 Network Alarm (reserved for PowerCon)**



Set Network Alarm

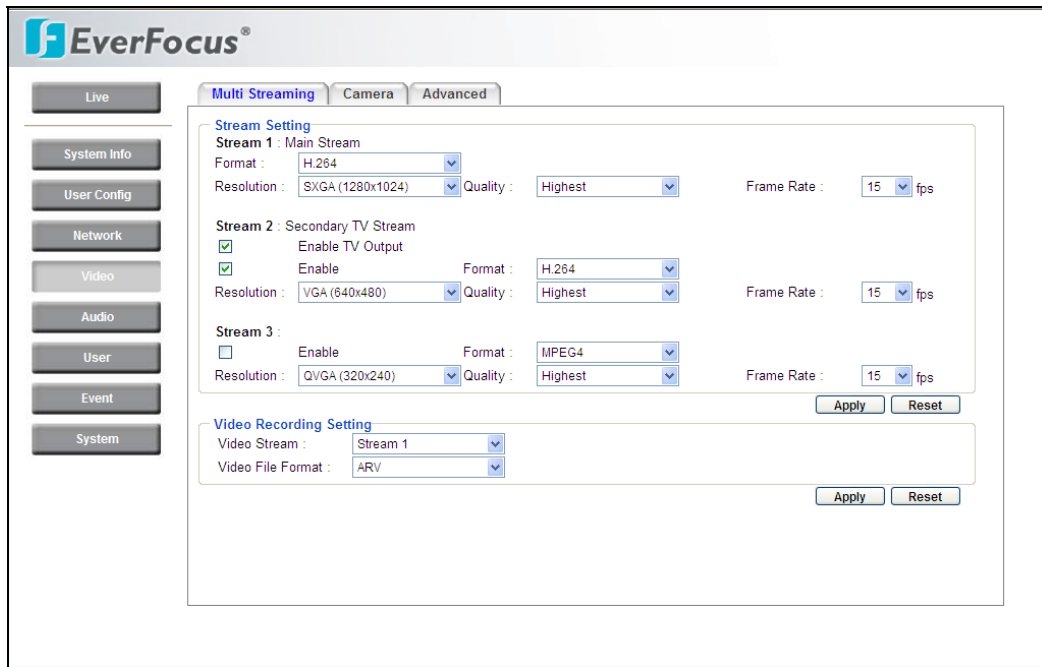
This function is reserved for PowerCon software, for the detail setting please refer to PowerCon network alarm protocol.

**4.4 Video**

The settings relating video such as streaming, camera OSD can be configured on this page.

The "Video" page has 3 tabs: the [Multi-streaming] tab, [Camera] tab and the [Advanced] tab.

### 4.4.1 Multi Streaming



#### Stream Setting

The system can output 3 video streams simultaneously. For each of them, user can set compression format, resolution, quality and frame rate individually. Stream 1 is main stream for live view. Stream 2 is secondary TV stream for TV output. Stream 3 is used for small size view display.

Check “Enable” box to enable other streams for the different applications.

Format: Select encode format from H.264, MPEG4 and MJPEG.

Resolution:

Stream 1 - SXGA (1280\*1024) / SWXGA (1280\*960) / 720P (1280\*720) / VGA (640\*480) / QVGA (320\*240).

Stream 2 - VGA (640\*480); Check “Enable TV Output” to enable analog TV output for monitor.

Stream 3 - QVGA (320\*240) / QCIF (176\*120) / SQVGA (160x128) / SQCIF (128x96).

Quality: there are 8 types of quality, please choose from Highest / Higher / High / Middle / Normal / Low / Lower / Lowest.

Frame Rate: max. 15 fps @ 1280 x 1024 ; max. 15 fps @ 1280 x 960 ; max. 20 fps @ 1280 x 720 ; max. 30 fps @ 640 x 480.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Video Recording Setting

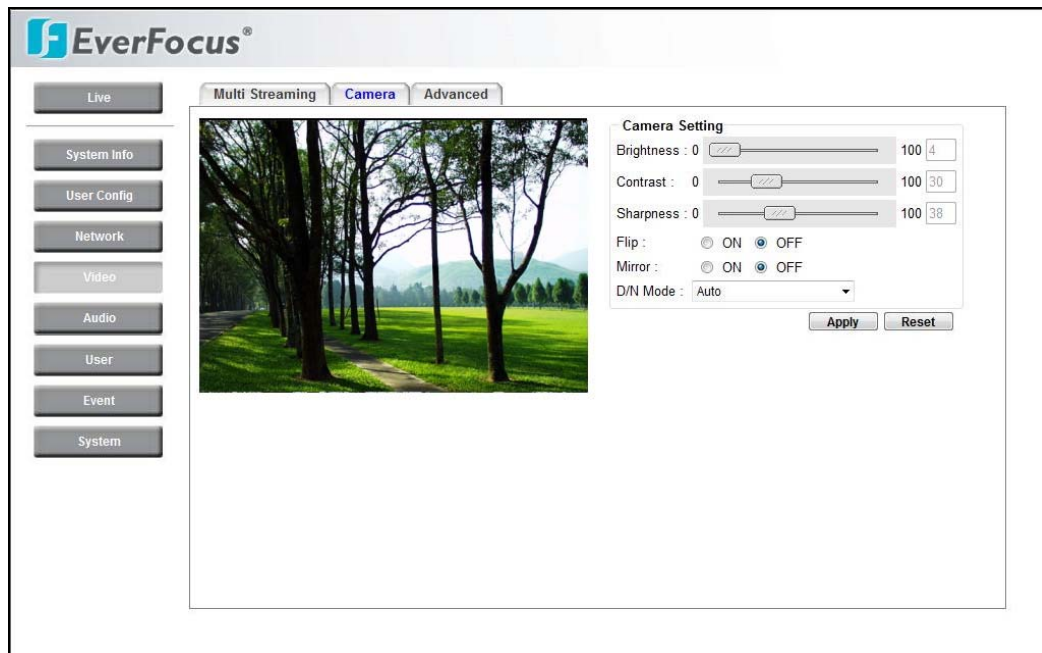
User can set video recording by selecting one of the enabled video streamings. This will allow user to view live images as well as to record video of the other video streaming.

Video Stream: Select video recording stream from any enabled stream.

Video File format: Recording file will be saved as AVI or ARV, select which file format to be used.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

**4.4.2 Camera**



Camera setting

Brightness: to increase or decrease contrast value of images. It is adjustable from 0~100.

Contrast: to increase or decrease contrast value of images. It is adjustable from 0~100.

Sharpness: to increase or decrease sharpness value of images. It is adjustable from 0~100.

Flip: Select ON or OFF to flip the video.

Mirror: Select ON or OFF to horizontally inverse the video.

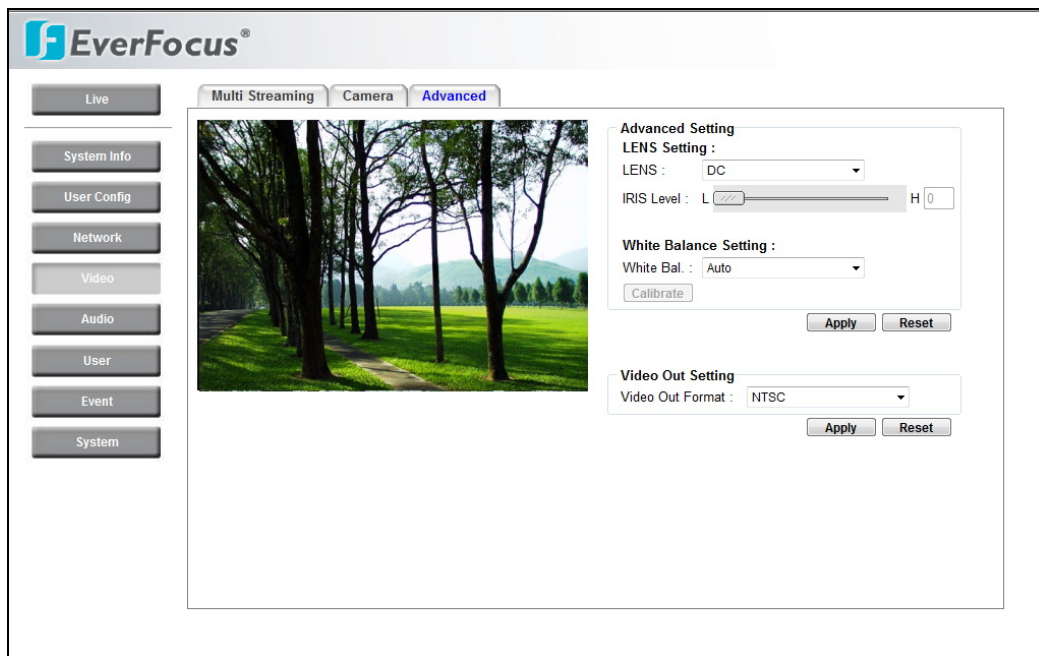
D/N mode: Select Auto, Color or BW for Day/Night function.

Auto - Automatically switch images from color to B/W when the illumination is under 15 Lux.

Color - Always fix images in color mode.

BW - Always fix images in Black/White mode.

**4.4.3 Advanced**





## Advanced Setting

### **Lens Setting**

LENS: Select DC or Fixed of the lens type used for camera.

DC: DC driven Lens

Fixed: Manual Lens

IRIS Level: to manually adjust IRIS level of Lens when selecting DC driven Lens. It is adjustable from 0~100.

### White Balance Setting

White Bal.: Select the white balance modes of Auto or Custom to apply the light sources. When selecting “Custom” mode, please press “Calibration” to automatically adjust the white balance value to apply the specified environment.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### Exposure Setting (Adjustable for Manual Lens only)

Auto Exposure: Enable or disable to automatically adjust the exposure.

Max. exposure time for Day mode: Select the exposure time value from 1/5s, 1/6s, 2/15s, 1/10s, 1/15s or 1/30s for day mode.

Max. exposure time for Night mode: Select the exposure time value from 1/5s, 1/6s, 2/15s, 1/10s, 1/15s or 1/30s for night mode.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

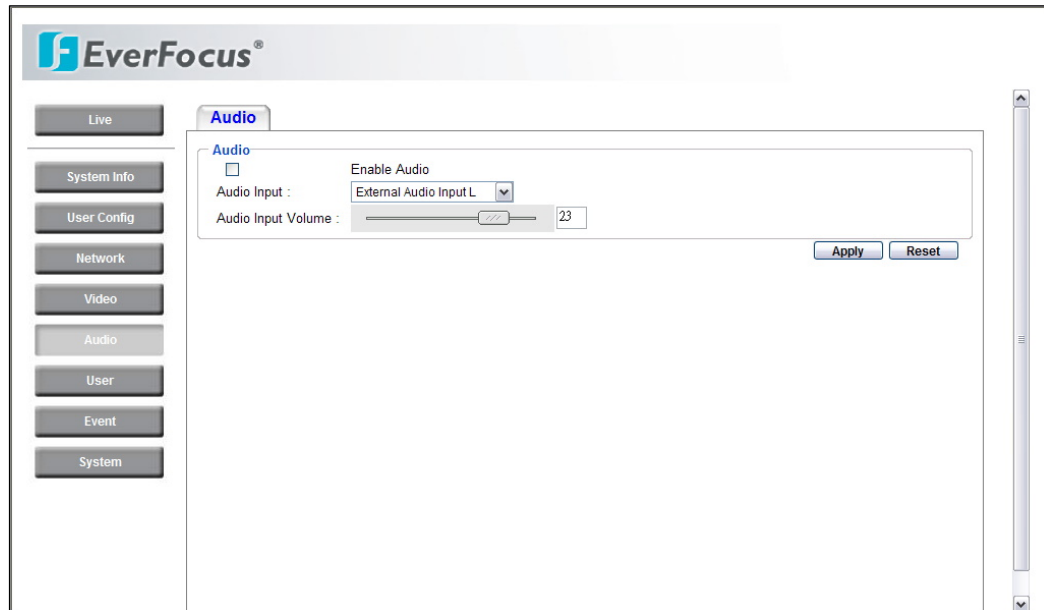
### Video Out Setting

Video Out Format: Select the video output format of NTSC or PAL for analog TV output usage.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

## 4.5 Audio

The EAN900 camera can transmit audio to other clients using a built-in microphone or connecting to external microphone to play audio received from other clients via connected speakers. This section describes how to configure the basic audio settings.



### Audio

Check **Enable Audio** box to enable audio function.

**Audio Input:** Audio from an internal microphone or a line source can be connected to the Audio connector of EAN900. The audio source can be selected from Internal Microphone, External Audio Input L and External Audio Input R.

#### *Note:*

*Microphone is not available for U.S. region.*

**Audio Input volume:** Adjust the Audio Input Volume for the audio input devices connected to the camera if there are problems with the sound input being too low or high.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

## 4.6 USER

Account	Description	Password	Authority	Status
user1	Administrator 1	••••••	SUPERVISOR	ACTIVE
user2	Normal user 2	••••••	USER	ACTIVE
user3	Normal user 3	••••••	GUEST	ACTIVE
user4	Normal user 4	••••••	GUEST	DISABLE
user5	Normal user 5	••••••	GUEST	DISABLE
user6	Normal user 6	••••••	GUEST	DISABLE
user7	Normal user 7	••••••	GUEST	DISABLE
user8	Normal user 8	••••••	GUEST	DISABLE
user9	Normal user 9	••••••	GUEST	DISABLE
user10	Normal user 10	••••••	GUEST	DISABLE

### User Information

Maximum 10 users can be set for using the IP camera. The **user information** displays the authorized users and access levels:

- **Supervisor/Administrator** –a supervisor/administrator has unrestricted access to the Setting menu and can determine the registration of all other users. However, administrator is not allowed to change supervisor’s account and password.
- **User-** a user can view the Live View page, system info, network, video, audio, and adjust user config settings. The user does not have access to the “user”, “event” and “system pages”.
- **Guest-** the lowest level of access, which only allows the user access to the Live View page.

**Note:** Please select Active in Status section to activate user account.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

## 4.7 EVENT

An event in the camera is when an Event Type is activated and causes certain actions to be performed. The event type is the set of conditions that specifies how and when which actions will be performed.

This table describes how to setup action types and event type.

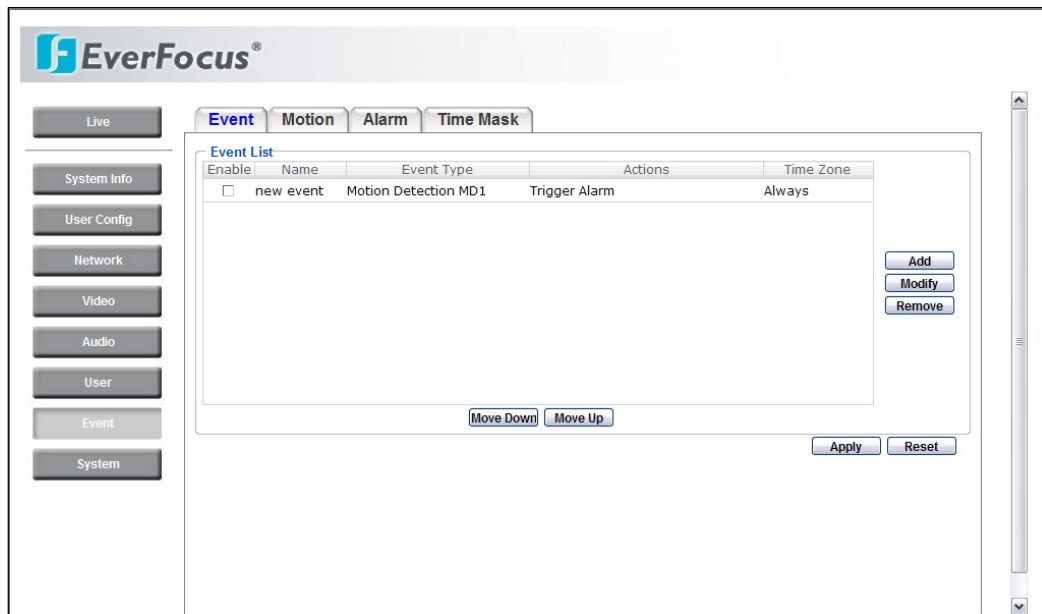
Event Type Action Type	Alarm Input	Manual Trigger	Motion Detection	Schedule Recording	Pre/Post-Alarm
Trigger Alarm	x	x	x		
Send Mail notification	x	x	x		
Upload to FTP**	x	x	x		x
Record to SD Card	x	x	x	x	x
Record to PC*	x	x	x	x	x
Network Alarm	x	x	x		
Re-trigger	x	x	x		

**Note:** 1. \* Record to PC only works when PC and IP camera are connected.  
 2. \*\*Either Upload to FTP or Record to Network Storage can be selected to record event video to remote site.  
 3. Up to 10 event types can be configured in the camera, and up to 3 of these can be configured to upload images.

### 4.7.1 Event

The settings relating to event occurrences such as settings for the event occurrence, motion, alarm and time mask can be configured on this page.

The "Event " page has 4 tabs: [Event] tab, the [Motion] tab, the [Alarm] tab and the [Time Mask] tab.



Press **Add** button to add an event condition.

To modify the event list, click on the event and it will be highlighted. Press

**Modify** button to modify the setting.

To remove an event from event list, click on the event and it will be highlighted.

Press **Remove** button to remove the event.

Check **Enable** checkbox to activate event actions when the event occurs in the specified time zone.

Event List				
Enable	Name	Event Type	Actions	Time Zone
<input type="checkbox"/>	new event	Motion Detection MD1	Trigger Alarm	Always
<input checked="" type="checkbox"/>	motion	Motion Detection MD1	Record to PC	Always

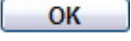
To change the priority of events, click on the event and it will be highlighted. Press

**Move Down** or **Move Up** button to move between events. The event that has highest priority will be activated first.

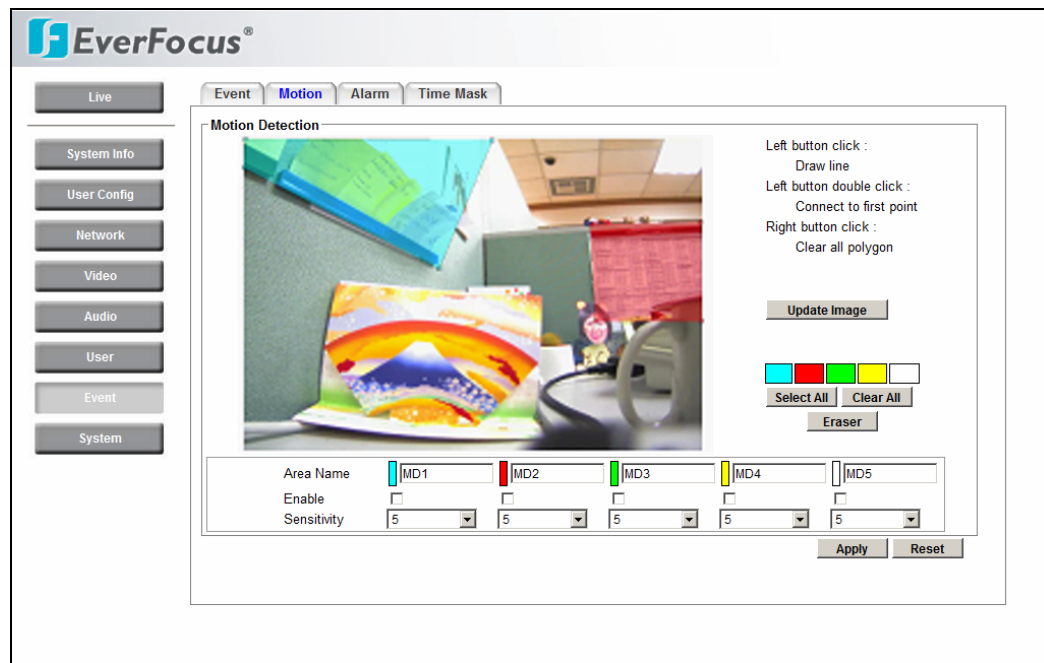
Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

This example describes how to set the camera to upload images to FTP when someone press Manual trigger button:

1. Click **Add** button in Event page.
2. Enter an event name for the event, e.g. Event 1.
3. Select “Manual Trigger” as event type.
4. Select “Upload to FTP” as action type.

5. Check “Enable Pre-alarm Buffer” and “Enable Post-alarm Buffer”. For pre-and post alarm buffer setting, please refer to “4.7.3 Alarm”.
6. Check “Enable This Event”.
7. Select “Always” for time mask. For detail about Time Mask, please refer to “4.7.4 Time Mask”.
8. Click  to save this event in event list.

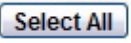
### 4.7.2 Motion

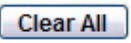


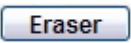
#### Motion Detection

User can define the motion area to be detected by left clicking the mouse to draw lines. Every click is an end point of the line. When the detection area is formed, double click the mouse to have all the lines connected. To remove the selection, simply right click the mouse, the selected polygon will be deleted.

Press  to update the current image.

Press  to have the entire screen selected for motion detection.

Press  to clear all selections.

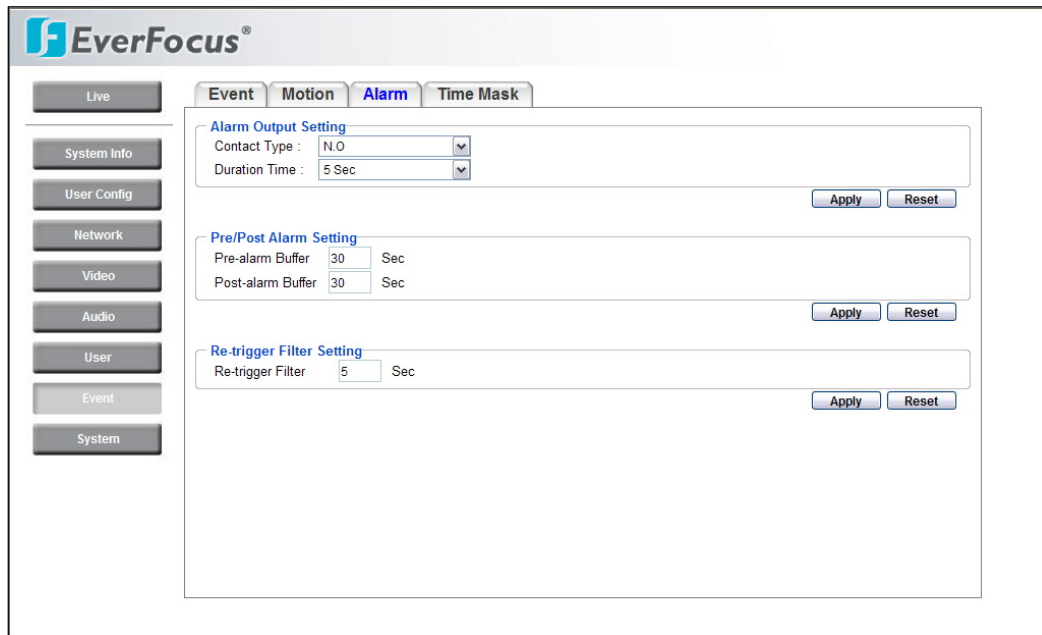
Press  and click on the polygon, to erase that polygon.

There are 5 motion trigger areas, which can be distinguished by 5 different colors. Check **Enable** checkbox to enable event action.

For each of them, you can set the event action to be activated. Event action can be set in “Event” section.

Moreover, you can set the **Sensitivity** level for motion triggered by selecting from 1 (low), 2, 3, 4, 5, 6, 7, 8, 9 to 10 (high).

### 4.7.3 Alarm



#### Alarm Output Setting

Contact Type: Normal Close, Normal Open

Duration Time: Select duration time of alarm output from 5 sec, 10 sec, 20 sec, 30 sec, 60 sec, 2 min, 3 min and 5 min.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

#### Pre/Post Alarm Setting

This function is used to check what happened immediately before and after a trigger, e.g. 5 seconds before or after a motion has been detected.



Pre-Alarm Buffer: Image saved internally in the server from the time immediately preceding the trigger. Input the desired length of pre-trigger buffer time. It can be set up to 120 seconds.

Post-Alarm Buffer: Image saved internally in the server from the time immediately after the trigger. Input the desired length of post-trigger buffer time. It can be set up to 120 seconds.

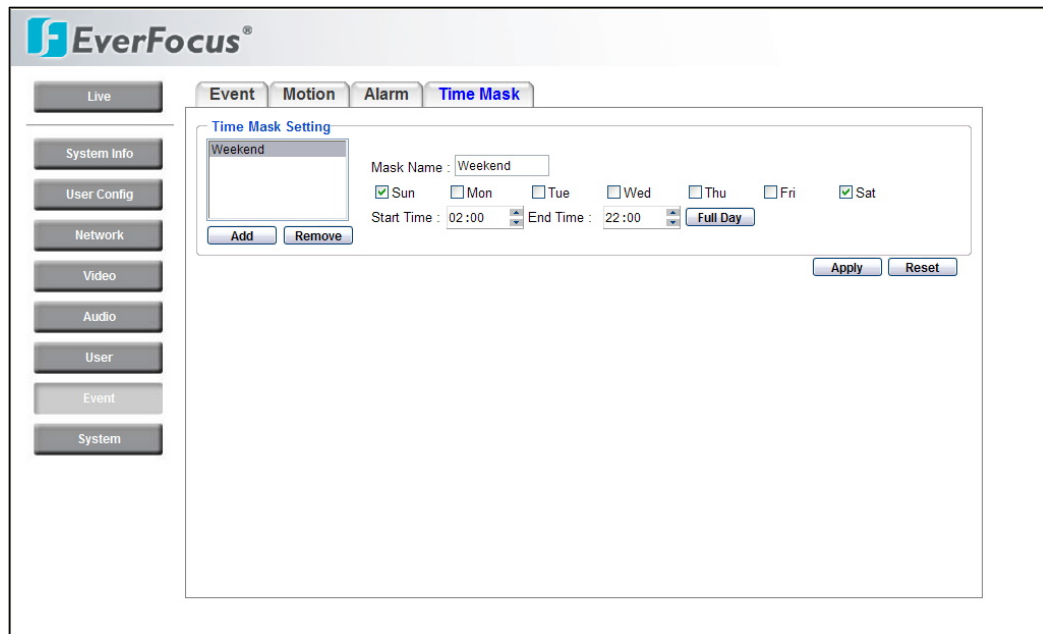
Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Re-trigger Filter Setting

Re-trigger Filter: Set a re-trigger filter time, if another event is triggered during this time, this triggered event will be ignored.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

**4.7.4 Time Mask**



Time Mask Setting

Time mask setting allows you to schedule event actions.

Select **Always** for event action to be taken continuously.

Press  button to add new time period.

Mask name: Input a mask name for the new time period.

Check the check box for the day to be scheduled: Sun, Mon, Tue, Wed, Thu, Fri & Sat.

Set the **Start time** and **End time** for time mask by clicking Up arrow or Down

arrow. Or simply press  for a full day of event action.

Press  button to remove a scheduled time period.

An example on how to set weekend as time mask is as follows:

1. Click  from time mask setting.
2. Enter Mask name, e.g. Weekend.
3. Check “Sun” & “Sat” boxes.
4. Select “Start time” and “End time” or “Full day”.

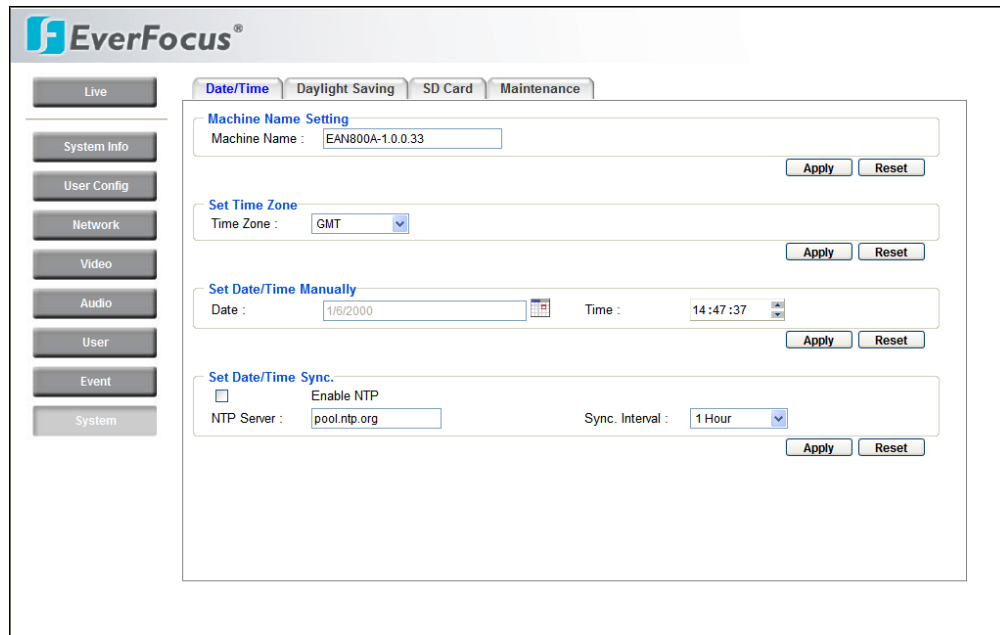
Press  to apply the setting changes or  to reset without saving the change.

## 4.8 SYSTEM

Date/Time, Daylight Saving, SD card and Maintenance settings can be performed on this page.

The "System" page has 4 tabs of the [Date/Time] tab, the [Daylight Saving] tab, the [SD card] tab and the [Maintenance] tab.

### 4.8.1 Date/Time



#### Machine Name Setting

Machine Name: Enter the name of the camera. The entered name will be displayed in the status display area.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

#### Set Time Zone

Time Zone: Select a time zone according to the location where the camera is in use.

Set Date/Time Manually

Date: Click the calendar and pick the date. Press << to go previous year, < to go previous month, > to go next month and >> to go next year.



Time: Click on Hour, Minute, Seconds, am/pm; then use up arrow to increase value and down arrow to decrease value.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Set Date/Time Sync.

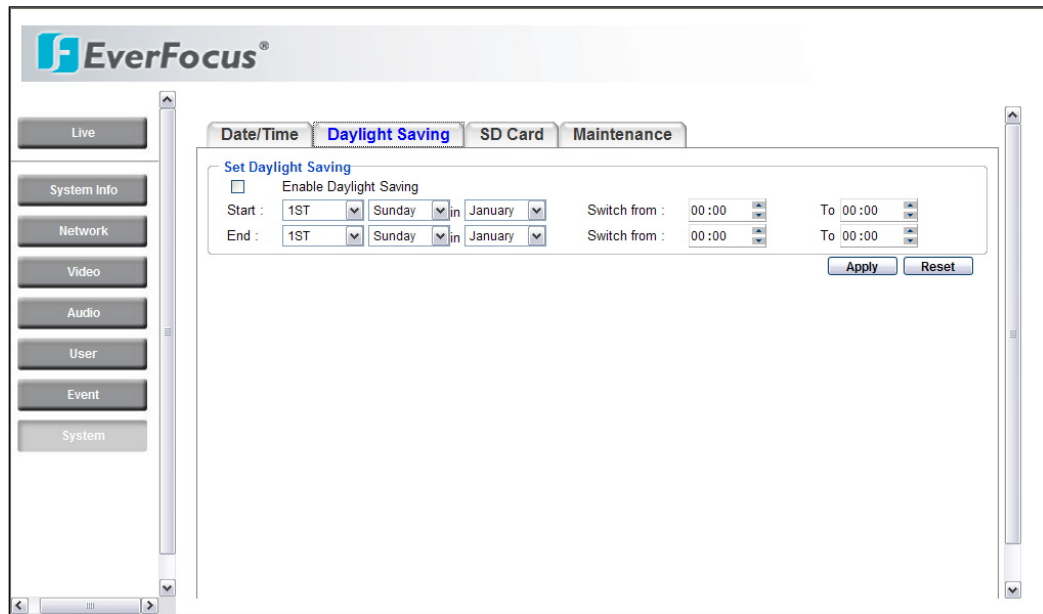
Check Enable NTP checkbox to enable NTP server.

NTP server: Time automatically adjusted by synchronizing with NTP server will be used as the standard time of the camera.

Sync. Internal: Select an interval (1 - 24 hours: in 1 hour intervals) of synchronization with the NTP server.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### 4.8.2 Daylight Saving



#### Set Daylight Saving

Check **Enable Daylight Saving** checkbox to enable daylight saving.

Set the start time to daylight saving time.

Set the start week of daylight saving time: 1<sup>st</sup> / 2<sup>nd</sup> / 3<sup>rd</sup> / 4<sup>th</sup> / Last

Set the start date of daylight saving time: Sunday / Monday / Tuesday / Wednesday / Thursday / Friday / Saturday

Set the start month of daylight saving time: January / February / March / April / May / June / July / August / September / October / November / December.

Set the starting time change of daylight saving time: Choose the “From” time and “End” time when daylight saving starts.

Set the end time of daylight saving time.

Set the end week of daylight saving time: 1<sup>st</sup> / 2<sup>nd</sup> / 3<sup>rd</sup> / 4<sup>th</sup> / Last

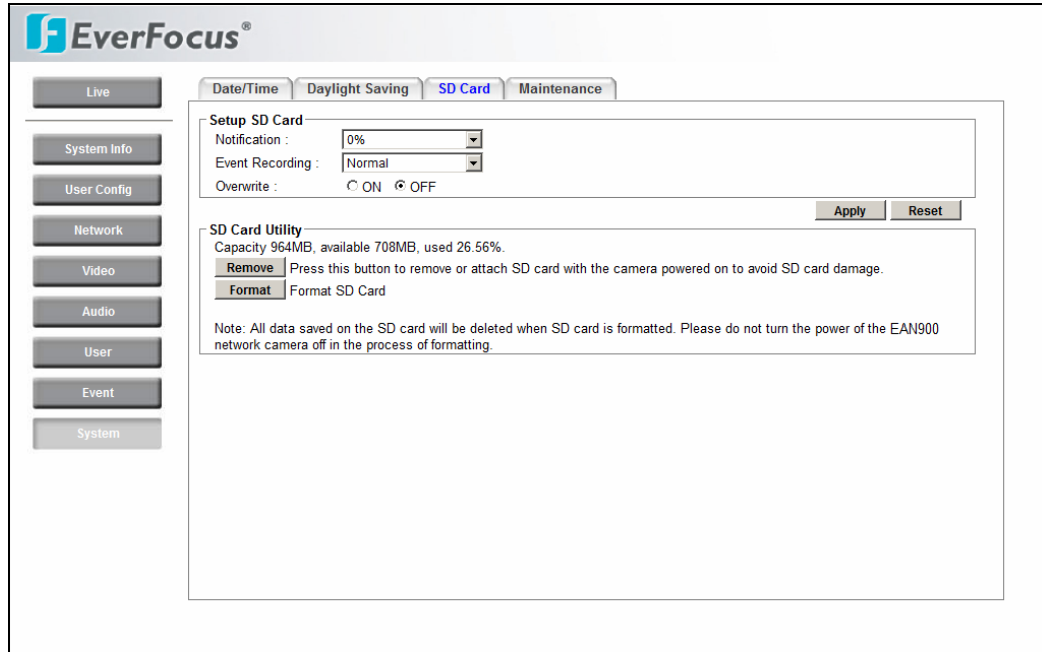
Set the end date of daylight saving time: Sunday / Monday / Tuesday / Wednesday / Thursday / Friday / Saturday

Set the end month of daylight saving time: January / February / March / April / May / June / July / August / September / October / November / December.

Set the ending time change of daylight saving time: Choose the “From” time and “End” time when daylight saving ends.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### 4.8.3 SD Card



#### Setup SD Card

Notification: Notification will be made via e-mail when the remaining space of the SD memory card reached the value selected from the following.

50%, 20%, 10%, 5%, 2%, 0%

**Note:**

1. When "50%" is selected, e-mail notification will be made each time the remaining space reaches 50%, 20%, 10%, 5%, 2% and 0%.
2. E-mail notification may not always be made at a very moment when the remaining space of the SD memory card reached the selected value.

**Event Recording:**

-FTP backup only: Event video will record to SD card when network is disconnected.

-Normal: Follow the event actions settings you have made in "Event" menu to record event video to SD card.

Overwrite: Select ON for overwriting data when SD card memory is full. Select

OFF for not overwriting SD card data.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

### SD Card Utility

The total size and available size of the SD memory card will be displayed. Depending on the state of the SD memory card, the size indications will differ as follows.

#### **Indication Description**

Capacity \_\_\_ MB, available \_\_\_ MB, used \_\_\_ %

Before formatting the SD memory card, it is necessary to press **Remove** button.

Once **Remove** button is pressed, **Attach** button will be shown for user to insert the SD card back.

Press **Format** button to format SD card.

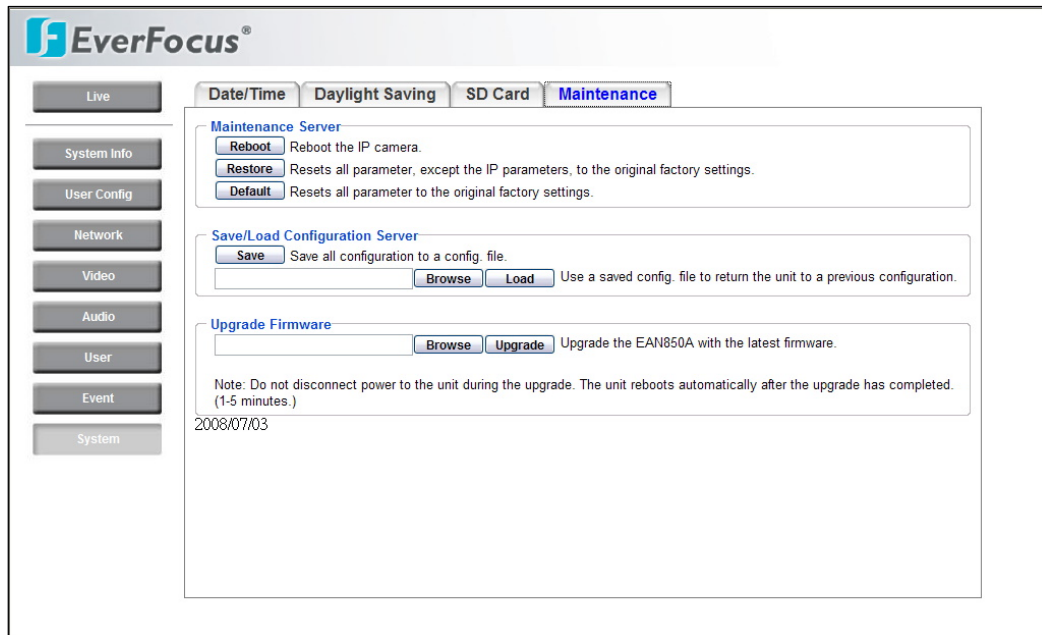
### Obtain images on the SD memory card

1. Access the camera using the Windows command prompt or FTP client software.
  - The window with the user name and password entry fields will be displayed.
2. Enter the user name whose access level is "1. Administrator" and its password.
  - Log in the camera.
3. A directory of all saved data will be displayed. You are now ready to obtain images from SD card.

#### *Notes:*

1. It is impossible to access the SD memory card in the process of formatting.
2. All data saved on the SD memory card will be deleted when the SD memory card is formatted.
3. Do not turn the power of the camera off in the process of formatting.

#### 4.8.4 Maintenance



#### Maintenance Server

Reboot: The unit is rebooted without changing any of the settings. Use this method by pressing **Reboot** button if the unit is not behaving as expected.

Restore: The unit is restarted and most current settings are reset to the factory default values by pressing **Restore** button. The only settings saved are:

- IP setting
- DDNS setting

Default: The **Default** button should be used with caution. Pressing this button will return all of the camera's settings, including the IP address, to the factory default values. The camera will then have to be re-installed.

#### Save/Load Configuration Server

To take a backup of all of the configurations, press **Save** to save all configurations to a config. file. If necessary, it is then possible to return to the previous settings if the settings are changed and there is unexpected behavior.

Press the **Browse** button to locate the saved config. file (see above) and then click



the **Load** button. The settings will be restored to the previous configuration.

### Upgrade Firmware

Upgrade the EAN900 with the latest firmware.

Press **Browse** button to search firmware file. Press **Upgrade** button to upgrade the firmware.

*Note 1: Do not disconnect power to the unit during the upgrade. The unit reboots automatically after the upgrade has completed. (1-5 minutes.)*

*2. During upgrading process, all event recording actions will be stopped. It will continue to record after the camera is rebooted.*

## 5. SPECIFICATIONS

<b>CAMERA</b>	
Pickup Device	1/3" Progressive scan CMOS 1.3 Megapixel
Pixel Effective	1280 (H) x 1024 (V)
Sensitivity	0.5 Lux / F=1.2
Day & Night	IR cut filter
Lens	Optional C/CS mount, manual / DD control supported
Video Output	BNC socket, composite 1 V p-p / 75Ω
<b>VIDEO STREAMING</b>	
Video Compression	H.264/MPEG-4/M-JPEG
Max. Video Resolution	1280x1024
Video Quality	8 levels adjustable
Frame Rate	Up to 15fps at 1280x1024
<b>AUDIO</b>	
Microphone	Built-in omni-directional microphone (not available for U.S. region)
Audio Input	3.5 mm stereo socket, sensitivity 1 Vrms
Audio Output	3.5 mm stereo socket, sensitivity 1 Vrms at load of 10KOhm and 50pf.
Compression Method	IMA ADPCM (Pulse Code Modulation)
Operation Mode	2 way audio
<b>NETWORK</b>	
Interface	10Base-T/100Base-TX auto-negotiation, RJ-45 socket Support MDI/MDI-X auto crossover function
Supported Protocols	HTTP, TCP / IP, UDP, RTP, RTSP, FTP, SMTP, DHCP, DNS, DDNS, NTP
Bandwidth Control	Min. 64 kbps adjustable
Max. Client Limit	32 simultaneous clients
<b>ALARM</b>	
Alarm Input	1 x input for dry contacts, Normal Open / Normal Closed adjustable
Alarm Output	1 x dry relay contact, Normal Open / Normal Closed adjustable, 70 VDC / 200 mA max
<b>SERIAL INTERFACE</b>	
RS-485	RS-485 interface bi-direction half-duplex (functionality reserved)
<b>EVENT MANAGEMENT</b>	
Event Triggered By	Alarm input, Manual trigger, Motion detection and Schedule recording
Notification Over	Trigger alarm output, Send mail notification, Upload video to FTP, Record video to SD card, Record video to PC and Network alarm
Pre- and Post- alarm Buffer	48MB RAM reserved for pre-alarm record up to 120 sec.
<b>LOCAL STORAGE</b>	
SD Card	Secure Disk physical layer specification version 2.0 Supports SDHC Host Specification
<b>POWER</b>	
Power Supply	12 VDC & PoE Power cord with 5.5 mm cable socket, 5.5 mm adapter cable 20 cm included in package

Power Over Ethernet	Yes (PoE 802.3af)
Power Consumption	4.5W max. (12VDC)
<b>PHYSICAL</b>	
Weight	500 g / 1.102 LBS
Dimensions	68 (W) x 57 (H) x 136 (D) mm [146mm (D) with BNC socket] / 2.7" (W) x 2.2" (H) x 5.4" (D) [5.7" (D) with BNC socket]
<b>ENVIRONMENTAL</b>	
Operating Temp.	0°C ~ 40°C / 32°F ~ 104°F
Humidity	< 90% not condensing

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